

REMARKS

In the Office Action dated January 29, 2007, pending Claims 1-21 were rejected. Of these claims, Claims 1, 11 and 21 are independent claims; the remaining claims are dependent claims. In response, Applicants have filed this Amendment in which independent Claims 1, 11, and 21 have been rewritten. Certain dependent claims have been amended as well in order to ensure consistency in the claim language. The Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks.

Applicants are not conceding in this application the claims amended herein are not patentable over the art cited by the Examiner, as the present claim amendments are only for facilitating expeditious prosecution. Applicants respectfully reserve the right to pursue these and other claims in one or more continuations and/or divisional patent applications. Applicants specifically state no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Rejections under 35 USC 101

Claims 1-21 stand rejected under 35 USC 101 as being directed to non-statutory subject matter. Applicants respectfully request reconsideration and withdrawal of these rejections.

Applicants respectfully submit that the invention is directed towards statutory subject matter, among other reasons, because it provides a useful, tangible and concrete result, i.e., classification. Nonetheless, in an effort to facilitate expeditious prosecution of the instant application, Applicants have re-written the independent claims to recite, *inter alia*, “providing an input corresponding to speech to the speech classification system” and “wherein the speech classification system provides a classification output decision.”

Claim 21. This language is intended to clearly indicate that the classification system of the instantly claimed invention has a useful, tangible and concrete result of classifying speech input and providing the result of that classification. The remaining claims all depend from the independent claims and have been amended where appropriate to recite “speech” in association with “classification system” to ensure that there is no confusion as to the useful features of the instantly claimed invention. Thus, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. 101.

Rejections under 35 USC 112, first paragraph

Claims 1-21 stand rejected under 35 USC 112, first paragraph, as failing to comply with the written description of the invention requirement. The Examiner asserts that the claims contain subject matter which is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respectfully request reconsideration and withdrawal of these rejections.

Firstly, the Examiner notes that “it does not appear that the step of providing a classification system including at least one structural parameter is distinct from the step of utilizing Gaussian mixture models for representing a global model...thus the step of providing a classification system should be merged with utilizing Gaussian mixture models.” *Office Action*, page 3. Clearly providing the classification system does not necessarily include utilizing Gaussian mixture models. It is unclear what the source of the confusion is. However, in an effort to clarify even further, Applicants have amended the claims to recited that the system (i.e., the one that is provided) utilizes Gaussian mixture models.

Secondly, the Examiner Asserts that “the scope of the claimed element, ‘at least one derived function’, is not well defined...”. *Id.* Applicants respectfully submit that the language clearly indicates that, of the possible derived functions, at least one must be utilized by the system and adapted according to the remaining claim language. Applicants respectfully submit that the claim, read as a whole and in context, is rather clear on this point. Again, the source of the confusion is unclear.

Thirdly, the Examiner asserts that “it does not appear that adapting the classification system is distinct from the step of selecting a model set from the global model set...Thus, the step of adapting the classification system should be merged with the step of selecting a model set.” *Id.* at page 4. Again, Applicants respectfully submit that the claim, when read as a whole, is rather clear in indicating that the adaptation is necessary and is achieved by employing the selected model set, hence the claim language “wherein the adaptation utilizes a multidimensional space *that is based upon the selected*

model set.” The system is adapted to utilize a multidimensional space, the space being based upon the selected set. Thus, Applicants respectfully submit that the claim language is proper and that the two limitations do not need to be merged.

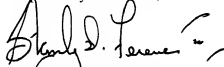
Lastly, the Examiner asserts that the Applicant’s specification is only enabling as to speech classification, not other classifications. Applicants respectfully submit that, as indicated in the original specification, page 4, lines 6-13, the speaker verification system described is but one example, and that “the methods carried out in accordance with at least one embodiment of the present invention may be applicable to essentially any classification problem involving two or more classes.” *Specification*, page 4, lines 9-12. Thus, Applicants respectfully submit that the invention is not limited to any particular classification problem, but may be employed to essentially any classification problem by one of ordinary skill in the art without undue experimentation. Nonetheless, Applicants, in order to facilitate expeditious prosecution have amended the claims to limit the instantly claimed invention to one disclosed embodiment where the classification system is applied to speech classification. Thus, Applicants respectfully request reconsideration and withdrawal of the rejections under 35 USC 112, first paragraph.

Conclusion

The prior art made of record is acknowledged by the Applicants. Applicants note that the art of made of record was not deemed sufficiently relevant to be cited against the instant application. Applicants have reviewed the art of record and will be prepared to address the art should the need to do so arise.

In summary, it is respectfully submitted that the instant application, including claims 1-21, is presently in condition for allowance. Notice to this effect is earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Stanley D. Ference III
Registration No. 33,879

Customer No. 35195
FERENCE & ASSOCIATES LLC
409 Broad Street
Pittsburgh, Pennsylvania 15143
(412) 741-8400
(412) 741-9292 - Facsimile

Attorneys for Applicants